

Translated from the German

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**Offenlegungsschrift**

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Applicant: Norbert Köster

Inventor: the same as the applicant

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Title in German of the object of the invention: Vorrichtung Schlauch-Roll-Ventil

**HOSE-ROLL-VALVE SYSTEM**

Description

Application

Devices for, e.g., blood bag systems.

Use of devices of the heating-element - butt-welding [butt fusion jointing]  
method as reversible hose closure devices.

Manufacturing

Hoses, capable of being heat-sealed or welded, having the same wall-thickness and same diameter, are heat sealed with the help of a heat-element butt-welding device, the welding seam not opened.

### Description

Hoses can be connected to one another with the help of devices from the heating-element butt fusion jointing in such a way that

1. The joint [spot of connection] remains closed as long as necessary,
2. Or can be opened by rolling the hose between the fingers.

(See drawing)

### Prior Art

At present, there are used cut-off valves of hard plastic material. As a result of the sharp, pointed cut-off edges, and as a result of the constriction, there occur undesirably intrusive or spurious shear forces, which damage erythrocytes (red blood cells), and bring about an undesirable hemolysis.

Fig. 1 shows two PVC-hoses ( $a + b$ ), having different diameters. With reference symbol  $a$  are denoted system-hoses, which are glued into the hose-part  $b$  of the closed "valve  $c$ ".

Fig. 2 shows two PVC-hoses ( $a + b$ ), having different diameters. With reference symbol  $a$  are denoted system-hoses, which are glued into the hose-part  $b$

of the open “valve c”.

### Patent Claims

Advantages for the user:

The “hose-roll-valves” provide a need-justified, reversible hose closure, and  
- after the opening - an unimpeded passage.

Thus, it is possible, after relevant preparatory work, e.g., centrifugation, to transfer - in a very gentle or considerate way - human blood cells, or other biological material from a collecting bag into another system bag. The system remains closed, the contents cannot be contaminated, e.g., by means of air-borne germs.

Technical advantages: Less components.

Explanation to the Drawings

Fig. 3 (=Bild 3)

Einsatzbereiche der “Schlauch-Roll -Systeme” am Beispiel Blutbeutelsystem =  
Areas of Application. Example: Blood-bag systems

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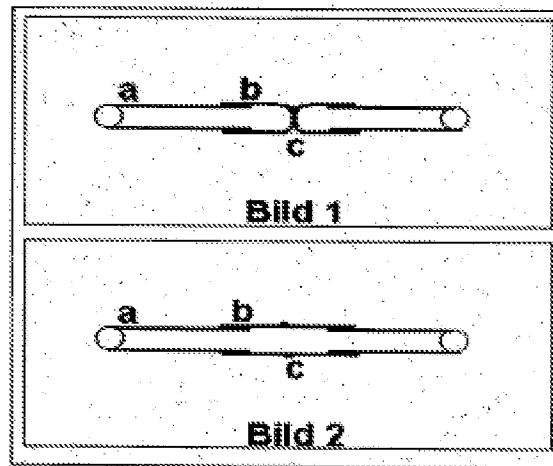
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The USPTO Translator from German & Germanic langgs.

USDoC/USPTO

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Zeichnung



**Einsatzbereiche der "Schlauch-Roll-Systeme"**  
am Beispiel Blutbeutelssystem

Bild 3

